

NON-PUBLIC?: N
ACCESSION #: 9407070274
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Oyster Creek, Unit 1 PAGE: 1 OF 4

DOCKET NUMBER: 05000219

TITLE: REACTOR SCRAM DUE TO PERSONNEL ERROR WHILE PERFORMING
SWITCHYARD WORK

EVENT DATE: 05/31/94 LER #: 94-007-0 REPORT DATE: 06/30/94

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: POWER LEVEL:

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION:

50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:

NAME: A. AGRAWAL TELEPHONE: (609) 971-4560

COMPONENT FAILURE DESCRIPTION:

CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

A reactor scram occurred due to modification work in the switchyard on May 31, 1994 at 1332 hours. While loosening a wire connected to an auxiliary relay of the 230 KV bus section differential relay, to install a Digital Fault Recorder, the relay actuated causing a generator and turbine trip resulting in a reactor scram. All five Recirculation Pumps tripped, two Electromatic Relief Valves opened and both Isolation Condensers initiated. All systems responded to the scram as expected and therefore, there was no safety significance to this event. The plant was placed in cold shutdown at 2210 hours on May 31. Corrective actions included placing the modification on hold pending engineering review and strengthening procedural controls over switchyard work.

END OF ABSTRACT

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DATE OF OCCURRENCE

The event occurred on May 31, 1994, at 1332 hours.

IDENTIFICATION OF OCCURRENCE

A full reactor scram occurred due to a turbine trip, which resulted from operation of the generator lockout relay 86/GT. This is reportable in accordance with 10 CFR 50.73(a)(2)(iv).

CONDITIONS PRIOR TO OCCURRENCE

The plant was operating at approximately 100% power. The Jersey Central Power & Light (JCP&L) Relay Department was installing a Digital Fault Recorder in the 230 KV bus section differential relay circuitry in the switchyard.

DESCRIPTION OF OCCURRENCE

On May 31, 1994, after notifying the OC Control Room, JCP&L relay technicians were working in the switchyard (EIS-FK) to install a Digital Fault Recorder (DFR) (CFI-AR) in the 230KV bus section differential relay (CFI-87) circuitry. The Relay Department had earlier reviewed the related as-built drawings and concluded that opening the circuitry for the installation of the Digital Fault Recorder would not affect operation of the plant. However, while loosening a termination of a coil of auxiliary 230KV bus section relay, the relay technician observed a spark. The relay foreman noticed that the Oyster Creek 230KV output circuit breakers (CFI-BKR) GC1 and GD1 had tripped. The relay coil opened the output breakers, tripped the main generator (CFI-GEN) and actuated the auxiliary trip lockout relay which tripped the turbine (CFI-TRB) resulting in an anticipatory reactor (CFI-RCT) scram. The turbine stop valve closure resulted in a reactor pressure spike to 1086 psig which automatically tripped all five Recirculation Pumps (CFI-P) initiated both isolation condensers and momentarily opened two Electromatic Relief Valves (CFI-RV) to control reactor pressure. All systems functioned as expected. The isolation condensers were secured and the plant was cooled down normally using the turbine bypass valves. Cold shutdown was achieved at 2210 hours on May 31, 1994.

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CAUSE OF EVENT

The cause of the reactor scram was the turbine trip as a result of the

generator trip initiated by the pick-up of the relay coil in the switchyard. This actuation of the relay was confirmed by repeating the steps of loosening the wire and observing the pick-up of the relay coil.

The modification was reviewed by JCP&L personnel and the actuation of the relay was not expected. However the relay coil picked up via a DC indicating light connected to the positive bus and the point of the spark.

The cause of the event is human performance and is considered a cognitive error. An apparent contributing cause to this event was the procedural control over switchyard activity. Oyster Creek Nuclear Generating Station is operated by GPUN and the switchyard equipment is maintained by JCP&L. The equipment initiating the plant trip is located outside GPUN jurisdiction. The switchyard access is controlled by an Oyster Creek procedure. Although this procedure requires notifying the Control Room and stating the purpose of the work to be performed, it does not require a detailed review of work activities with plant personnel. GPUN operations and engineering had not reviewed the modification work being performed in the switchyard.

ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

Plant response and operator actions with respect to this event were reviewed by the Plant Transient Review Group (PTRG). The review determined that the plant responded as designed and operator response was appropriate. The event was an unnecessary challenge to plant equipment and operators, however, the safety significance is considered minimal.

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CORRECTIVE ACTION

Immediate corrective action was to place the modification installing the DFR on hold pending a review by GPUN engineering personnel. A new agreement has been reached between JCP&L and GPUN strengthening the control and review of switchyard activities. The procedure will be revised to include these controls.

SIMILAR EVENTS

None

ATTACHMENT TO 9407070274 PAGE 1 OF 1

GPU Nuclear GPU Nuclear Corporation

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609 971-4000
Writer's Direct Dial Number:

C321-94-2104
June 30, 1994

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Licensee Event Report

Enclosed is Licensee Event Report 94-007.

If there are any questions please contact Brenda DeMerchant, Oyster Creek
Licensing Engineer at 609-971-4642

John J. Barton
Vice President and Director
Oyster Creek

JJB/BDEM/jc
Encl
sure

cc: Administrator, Region I
Senior Resident Inspector
Oyster Creek NRC Project Manager

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